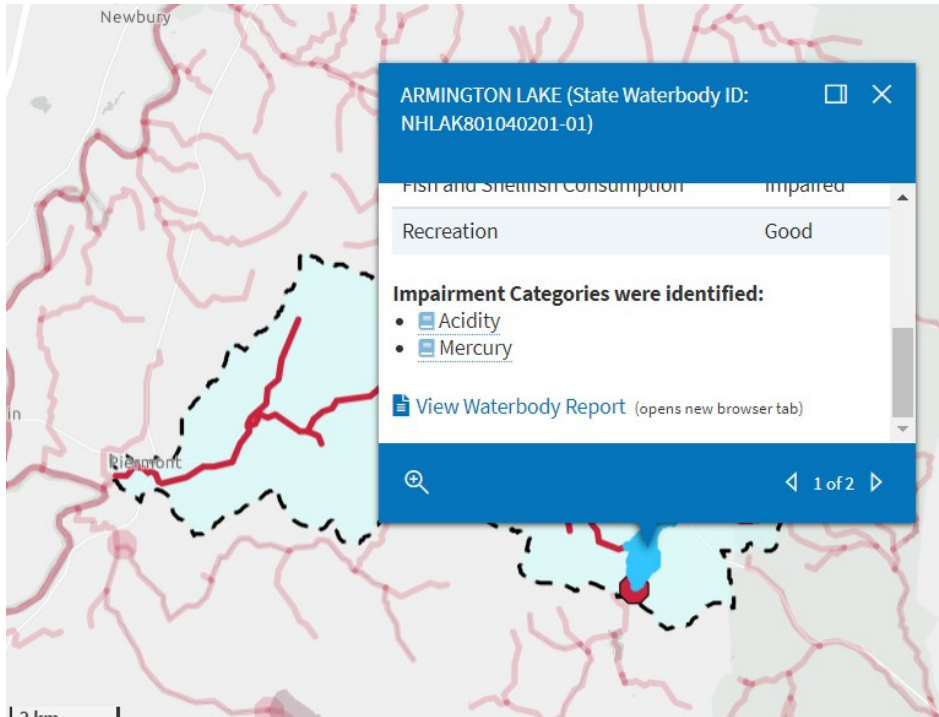
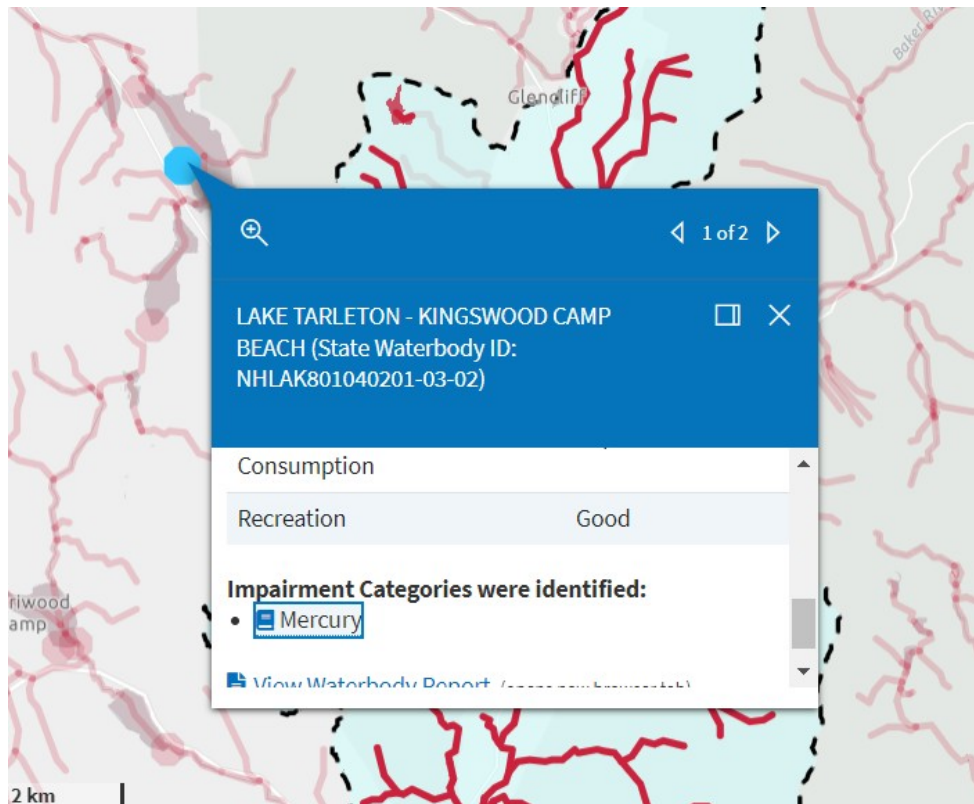


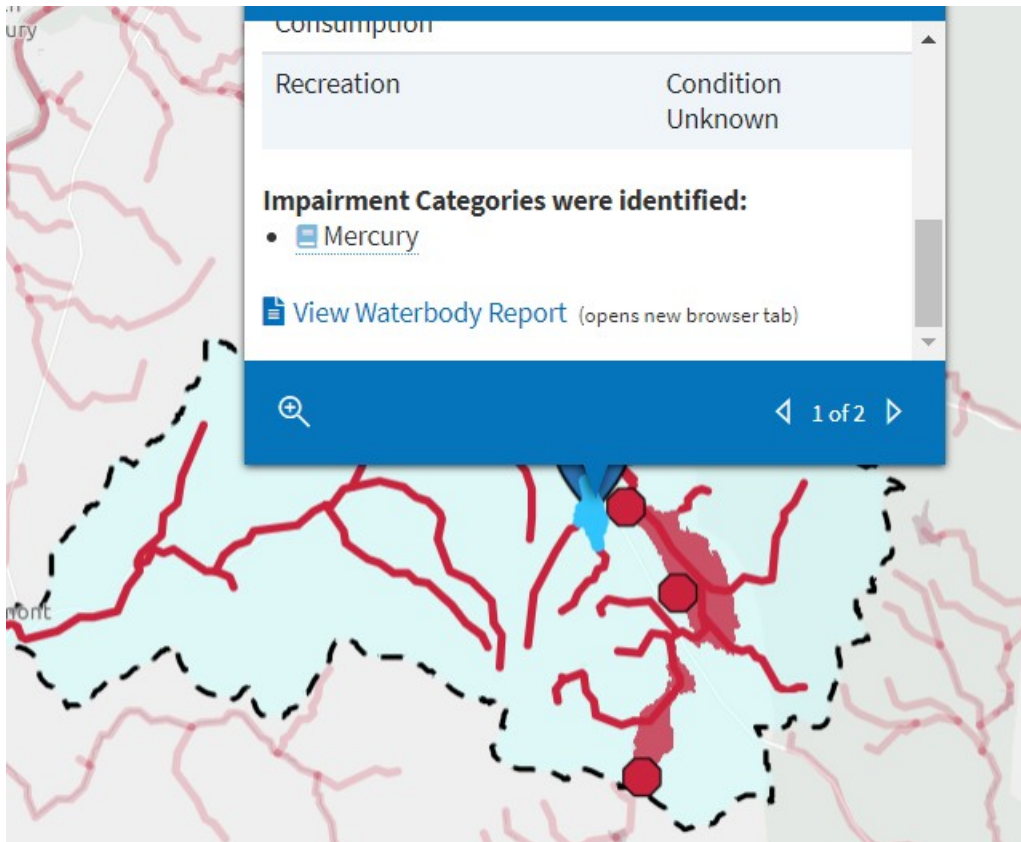
Comment on Lake Tarleton IRP Environmental Assessment #56394: Logging and mercury concentrations in waterbodies:

The Lake Tarleton EA failed to incorporate/address the impairments and restoration plans for the water bodies in the proposed project area.




Lake Tarleton, Lake Katherine, Eastman Brook and Lake Armington all are classed as impaired waters by NH DES. These lakes all contain mercury.





<https://mywaterway.epa.gov/community/Lake%20Katherine%20piermont%20nh/overview>

Eastman Brook (13 miles) is an impaired stream, for mercury and pH, with a restoration plan. The 1860 map of Warren shows the Cross Mine above and north of where the main road intersects Charleston Rd.

 EASTMAN BROOK Assessment Unit ID: NHRIV801040201-03
Waterbody Condition: Impaired Existing Plans for Restoration: Yes 303(d) Listed: Yes Year Reported: 2018 Organization Name (ID): New Hampshire (11113300)
What type of water is this? Stream/creek/river (1.2 Miles)
Where is this water located? 010801040201, EASTMAN BROOK

[2018 Assessment Mapper](#)

Assessment Unit ID (AUD) (for mapped extent, see the 2018 Assessment Mapper)	Assessment Unit Name	Town(s) - Primary town listed first	Water Size	Size Unit
NHRIV801040201-04	EASTMAN BROOK	PIERMONT	13.079	MILES
NHRIV801040201-07	UNNAMED BROOK	PIERMONT	0.783	MILES
NHRIV801040201-08	TARLETON LAKE-NORTHEAST INLET	PIERMONT, WARREN	0.332	MILES
NHRIV801040201-09	TARLETON LAKE-SOUTH INLET	WARREN	0.817	MILES
NHRIV801040201-10	UNNAMED BROOK - TO ARMINGTON LAKE THROUGH SOUTHWEST INLET NEAR PUBLIC LAUNCH	PIERMONT	1.107	MILES

Lake Tarleton, has a restoration plan:

Plans to Restore Water Quality

What plans are in place to protect or restore water quality?
Links below open in a new browser tab.

Plan	Impairments	Type	Date
158 Acid Ponds	pH	TMDL	2007-09-20
Ne Regional Mercury Tmdl	Mercury	TMDL	2007-12-20
New Hampshire Statewide Bacteria	Escherichia Coli (E. coli)	TMDL	2010-09-21

Lake Katherine has a restoration plan:

Plans to Restore Water Quality

What plans are in place to protect or restore water quality?
Links below open in a new browser tab.

Plan	Impairments	Type	Date
Ne Regional Mercury Tmdl	Mercury	TMDL	2007-12-20

Armington Lake has a restoration plan:

What plans are in place to protect or restore water quality?
Links below open in a new browser tab.

Plan	Impairments	Type	Date
Armington Lake	pH	TMDL	2004-09-24
Ne Regional Mercury Tmdl	Mercury	TMDL	2007-12-20

The Lake Tarleton Logging Project (“IRP”) documents failed to incorporate the data on potential of logging to increase mercury concentrations in nearby water bodies. An increase in mercury in the watershed and water bodied would affect fish, otters, beavers, loons, great blue herons, mergansers, ospreys and other birds that feed on fish, insects, birds and humans who eat fish from any of the lakes that abut the proposed logging. **The documents failed to account for the combined effect of beaver dams, climate change and logging, on mercury concentrations.**

“Environmental contamination with mercury is a particular concern for beavers as it has an ability to accumulate in food webs and is lethal (Borcher et al., 2019).” p. 278

Beavers: Ecology, Behavior, Conservation and Management by Roisin Campbell Palmer, Derek Gow, Robert Needham, Simon Jones and Frank Rosell, Pelagic Publishing, Exeter, UK., 2015

“... numerous studies reported that phytoplankton absorbs MeHg by passive diffusion, therefore, there is a risk that this contaminant formed in beaver ponds can enter to aquatic food chain (Mason et al. 1996, Moye et al. 2002, Pickhardt and Fisher 2007).

Data indicates that logging increases mercury concentrations in water bodies:

<https://www.mdpi.com/1999-4907/12/9/1278/htm> 2021

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6799996/> 2020

<https://ui.adsabs.harvard.edu/abs/2018EGUGA..20.9260W/abstract> 2018

<https://link.springer.com/article/10.1007/s13280-017-1006-7> 2018

https://www.researchgate.net/publication/261101818_Impact_of_Forestry_on_Total_and_Methyl-Mercury_in_Surface_Waters_Distinguishing_Effects_of_Logging_and_Site_Preparation 2014

<https://www.ksla.se/wp-content/uploads/2011/03/KSLAT-2009-1-Forest-mercury.pdf> 2009

<https://pubs.acs.org/doi/10.1021/es032463l> 2003

<https://onlinelibrary.wiley.com/doi/10.1111/wlb.00678>

<https://www.researchgate.net/publication>

344299934_The_effect_of_beaver_dams_on_organic_carbon_nutrients_and_methyl_mercury_distribution_in_impounded_waterbodies

<https://onlinelibrary.wiley.com/doi/full/10.1111/j.1936-704X.2016.03212.x>

<https://www.nwf.org/Magazines/National-Wildlife/2013/DecJan/Conservation/Mercury-and-Wildlife>

https://www.srs.fs.usda.gov/pubs/gtr/gtr_srs211.pdf 2015

Neither the Lake Tarleton Draft Environmental Assessment nor the Biological Assessment contain the word mercury.

The Lake Tarleton Logging Project EA and other documents failed to take the best science into account, most importantly, recent data on climate change which shows that intact forests accomplish USFS habitat diversity and carbon sequestration goals:

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Northern Long-Eared Bat: The biological resources report states:

“Indirect effects include those that affect bats through alteration of habitat, such as the removal of roost trees when bats are not present. While there would still be ample roost trees available within the HMU and the surrounding area after the proposed timber harvests have been conducted, bats may be impacted if existing maternity roost trees are removed. Site fidelity is common in NLEB and females often return to the same maternity area over multiple years (USDA Forest Service 2014). While research has shown that an NLEB maternity colony can persist with a 20 percent reduction of the roost trees associated that colony, which would be consistent with the ephemeral nature of snags (Silvis et al. 2015), **there is still a risk of impacting maternity colonies with the degree of tree removal proposed.**”

The revised Tarleton Logging Project EA and Biological Evaluation failed to adequately address the threats posed by logging, mercury, and herbicides to the Northern Long Eared Bat and Tri-colored Bat, the former which may soon be listed as endangered.

A FOIA should not be required (it was) to obtain supporting documents in a public report:

Sease, J. and L. Prout. 2015. Biological assessment for ongoing project activities with determinations of no effect or may affect, not likely to adversely affect for the northern long-eared bat on the Green Mountain and White Mountain National Forest. Unpublished report, White Mountain National Forest, Campton, NH. 2 March 2015. 120 pp

“Of the seven species known to be affected by the deadly bat disease [white-nose syndrome](#), the northern long-eared is among the hardest hit. In the U.S. Northeast, where white-nose syndrome has been killing bats for the longest period of time (since 2006), the northern long-eared has declined by a shocking 99 percent.

Because of this species' strong association with large blocks of older forests, forest fragmentation, logging and forest conversion (such as clearing trees for agriculture and development) are also major threats to the species.”

https://www.biologicaldiversity.org/species/mammals/northern_long-eared_bat/index.html

“Northern long-eared bats are a forest interior species that require adequate canopy closure for both roost and foraging habitat (Lausen 2009). Roosting and foraging activities tend to occur within closed,

intact forest stands (Sasse and Pekins 1996, Foster and Kurta 1999, Lacki and Schwierjohann 2001, Owen et al 2002). Wing morphology of the northern long-eared bat makes them ideally suited for the high maneuverability required for gleaning-type foraging within a cluttered forest interior (Amelon and Burhans 2006, Owen et al. 2003, Henderson and Broders 2008). Bat distribution and abundance are affected by availability of insect prey, which for northern long-eared bats consists primarily of beetles and moths (Brack and Whitaker 2001, Carter et al. 2003). Abundance of these prey items is typically higher in more closed forest stands than in openings, which supports studies which have found northern long-eared bats to avoid open habitats (Owen et al. 2003).”

https://www.nhsec.nh.gov/projects/2013-02/documents/131212appendix_43.pdf

“...hundreds of species are on a backlog waiting to be federally listed — including another state [Indiana] endangered bat, the tri-colored bat. **The U.S. Fish and Wildlife Service has previously stated that, for more than two decades, the number and cost of these listing decisions has exceeded the agency’s budget for them.**” (my emphasis) WMNF must take into account that there are political and financial reasons for USFW’s failure to list many bats, other animals and plants as endangered and protect species according to their true status. For example: “Habitat present; species assumed to be present. Chenger (2004) captured individuals within HMU in 2004. NHFGD did not capture any in follow- up effort in 2019” supports other documentation of a drastic decline in NLEB population, and need to avoid logging.

Peregrine Falcon, Osprey and Loons: Biological Report admits potential harmful effects of logging on these birds: “May adversely impact individuals, but not likely to result in a loss of viability in the Planning Area, nor cause a trend toward federal listing.” Is WMNF combining impacts from all its logging projects, or simply claiming that no one project will have significant while ignoring the collected and cumulative effects? The report produces no documentation showing that removal of the Scots Pine will not affect the Peregrines.

“Direct effects are possible if activities occur while falcons are foraging within the opening. If this is the case, individuals would likely be displaced until activities have ceased. Negative indirect effects include the potential loss of perch trees if the non-native scots pine trees are removed from the opening. However, there are ample perch trees of native species that would remain within and adjacent to the openings. Overall, the occasional maintenance of this wildlife opening results in a net indirect benefit to the species because, without maintenance, the opening would revert to a forested condition and the foraging habitat that exists today would be lost.

As mentioned above, the open character of the adjoining state- and privately-owned land contributes to the size and quality of peregrine falcon foraging habitat within the project area. The

continued maintenance of these open lands represents a beneficial cumulative effect to the species.”

The EA and Biological Report fail to address the effects of climate change, which is increased by logging, on loons: _

“Projected average air temperature change during breeding season between present day and the year 2050 ranges from 1.94°C in May to 4.13°C in November, with maximums ranging from 3.37°C in May to 8.47°C in November. These changes could lead to mismatched phenologies with prey resources, decreased water quality and habitat degradation, a shift in predator demographics, introduction and exacerbation of disease and pest species, and an increase in flooding and extreme weather events. We recommend both direct management of climate related threats as well as indirect limiting of other stressors to enhance future conservation efforts for the common loon.”

https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1161&context=open_access_dissertations

“Headwater Ameletus Mayflies”

“It is believed that minimizing sedimentation through the use of best management practices and design features during project implementation is sufficient to protect these species (Prout 2019).”

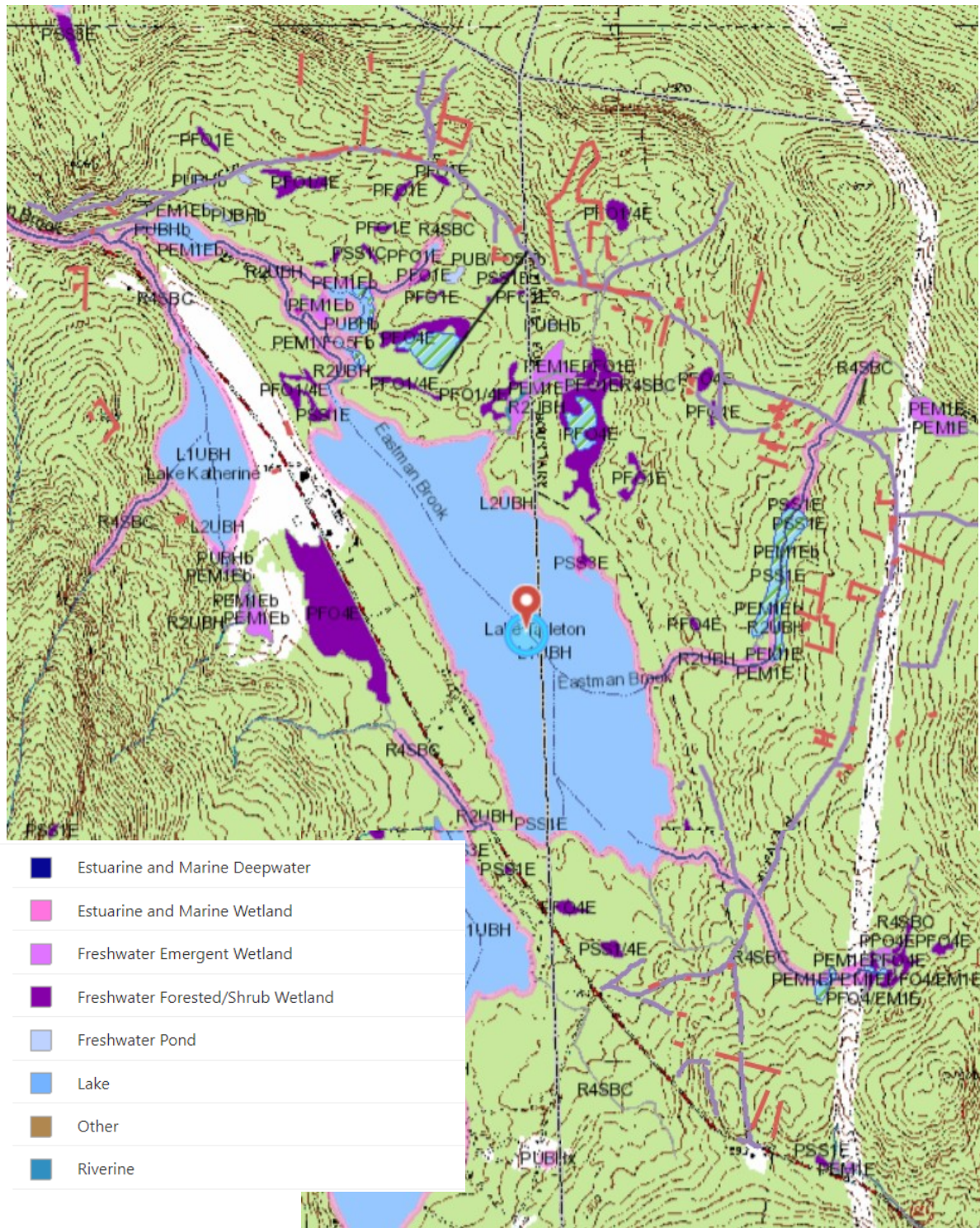
Prout, M. (Fisheries Biologist, Supervisor’s Office, WMNF). 2019. Personal communication via email to Brett Hillman, Assistant District Ranger - Wildlife, Pemigewasset Ranger District, WMNF. April 19, 2019.

“It is believed” is not a high enough standard of evidence, especially when provided from an employee of WMNF who will be under pressure to provide the opinion sought.

“Yellow-banded Bumblebee and Monarch Butterfly...”

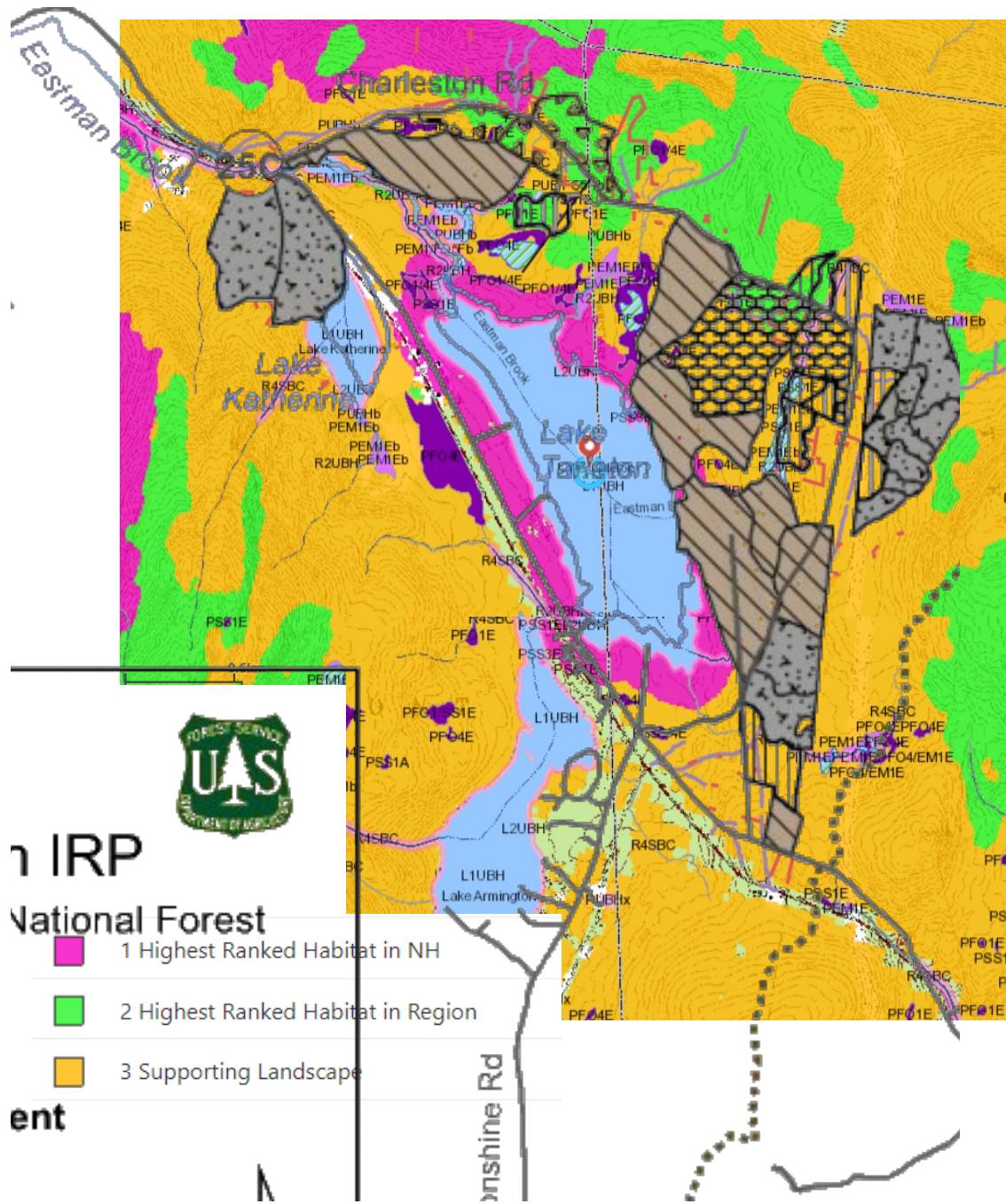
Overall, indirect impacts to both species would be beneficial. The expansion and continued maintenance of openings and maintenance of roadsides would perpetuate the habitat into the future, while timber harvests would temporarily create new habitat since the forb and shrub species that colonize harvested areas would provide floral resources that did not exist prior to tree removal.”

The Tarleton EA and Biological Report provide no documentation to support the assertion that more forb and shrub species will benefit the Yellow-banded Bumblebee and Monarch Butterfly. There is no mention of Milkweed being present at the proposed logging areas. The report says: “May adversely impact individuals, but not likely to result in a loss of viability in the Planning Area, nor cause a trend toward federal listing.” which contradicts the earlier statement. The report says Milkweed has been documented at the powerline, which is mowed regularly.



Wetlands, streams and historic resources map. Streams with 100' buffer.

Cultural resources and habitat map with logging plan overlay:



“Insecticide application on [Forest Service](#) managed public lands for spruce budworm has been shown to cause massive kills of bumble bees.”

There are only six references in the Biological Evaluation that were not produced by USFS.

The most recent bat data is from 2019.

The Lake Tarleton EA and Biological Report failed to address the soil compression caused by logging,

“[University of Missouri](#) researchers have found that logging operations can negatively affect soil density and water infiltration within forests, particularly along makeshift logging roads and landing areas where logs are stored before being trucked to sawmills.”

The Lake Tarleton project (IRP) requires an Environmental Impact Analysis, because the EA;

- 1. failed to address the effects of logging, climate change and beavers on mercury concentrations in abutting waterbodies and wetlands and the effects of this potential increase in mercury on insects, fish, invertebrates, plants, birds and people,**
- 2. failed to address the danger of herbicides and insecticides on insects and the animals that consume them,**
- 3. failed to acknowledge and be guided by current data on logged (managed) forests vs. intact forest in providing habitat diversity, carbon sequestration and scenic value,**
- 4. failed to provide of a complete assessment of the cultural resources in the project area,**
- 5. failed to acknowledge their cultural value and give them adequate protection and restoration,**
- 6. failed to acknowledge the role of transportation corridors (logging and skidder roads and OHRV trails) in dispersing invasive species and**
- 7. failed to incorporate private early successional forests in the area of the project into their assessment of need.**

Questions:

Has any WMNF logging project (IRP) produced an Environmental Impact Analysis?

If not, where has WMNF provided documentation of their assertion that 50 years of logging WMNF has not produced significant effects on the climate, terrain, bats, watersheds, any animals or plants, scenic values, recreational experiences, soil health of WMNF?

Has WMNF ever made substantial changes in a logging project (IRP) because of public input?

Has WMNF ever chosen the ‘no action’ alternative in a logging project (IRP)?

Is WMNF more likely to produce a FONSI when it feels that a lawsuit challenging this decision is unlikely and has WMNF assessed this as an act of economic injustice?

"[Mortimer et al. \(2011\)](#) surveyed NEPA team leaders and found that decisions about the level of analysis to pursue (i.e., EA versus EIS) were primarily decided not based on a project’s potential impacts but rather based on the risk of public controversy and litigation.”

<https://academic.oup.com/jof/article/118/4/403/5825558>

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